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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,298	11/11/2003	Assaf Govari	U 014945-6	5756

7590 10/18/2006

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EXAMINER	
SOLANKI, PARIKHA	
ART UNIT	**PAPER NUMBER**
3737	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/706,298	GOVARI, ASSAF	
	Examiner	Art Unit	
	Parikha Solanki	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/26/04, 3/28/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 1-35 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1, 3, 5, 10, 11, 27, 28, 32-35, 37, and 38 of copending Application No. 10/029,473. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 4, 38, 42, 43 and 44 of copending Application No. 10/029,473. Although the conflicting claims are not identical, they are not patentably distinct from each other because it is well known in the art that voltage information

is inherently acquired when collecting current flow data, in light of the scientific principles set forth by Ohm's law and Maxwell's equations.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claim 19 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 14. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 18 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 18 recites the limitation "the digital output" in line 14. There is insufficient antecedent basis for this limitation in the claim. Furthermore, dependent claim 20 recites that the output signal is analog, which teaches away from the limitations of claim 18. It is recommended that the word "digital" be removed from this claim so that the output in line 14 agrees with the output cited in line 10, and so that the limitations of dependent claim 20 no longer conflict with the limitations of independent claim 18. For the purposes of examination in the remainder of this Office Action, claims 18 and 20 will furthermore be treated as if the word "digital" were removed from line 14 of claim 18.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 1-11 and 14-23, 27 , 29 and 32-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Ben Haim (US Pat. No. 6,198,963), cited by Applicant.

Regarding claims 1-6 and 11, Ben Haim ('963) discloses a method for tracking an implantable medical tube comprising positioning an RF driver to radiate a driving field toward the object by fixing a wireless transponder to the object, driving a verification device, equivalent to plurality of field generators, to generate electromagnetic fields to induce a voltage drop across the sensor coil, generating an output signal at the transponder, transmitting the output signal from the wireless transponder and receiving and processing the output to determine the coordinates of the object (col. 2 lines 59-61, col. 3 lines 16-18, col. 4 lines 38-47, col. 6 lines 61-65). Ben Haim ('963) discloses that the position determining system may include driving a plurality of field generators at different respective frequencies (col. 10 lines 46-49). Ben Haim ('963) discloses that the verification device is located outside the body (Ben Haim ('963) also discloses that the transponder includes at least one sensor coil, and that it is passive, and that the sensor includes means for converging the RF output to digital form (col. 4 lines 39-42, col. 14 lines 13-15). Ben Haim ('963) does not explicitly disclose the presence of a power coil, but by well-known definition a passive transponder inherently includes a coil for collecting and storing energy from an external RF source for self-powering operation.

Regarding claims 7-9 and 14-20, Ben Haim ('963) discloses that receiving the RF driving field is received during a first learn period, without driving the field generators, and during a second time period subsequent to the first time period and prior to transmitting the output (col. 3 lines 27-30, col. 4 lines 1-4, col. 5 lines 1-6). Ben Haim ('963) also discloses that the sensor may include an A/D circuit for converting the RF output to digital form (col. 14 lines 13-15). Because Ben Haim ('963) specifies that the conversion of the RF output to digital form is not required, it is implicitly disclosed that the output may be analog.

Regarding claim 10, Ben Haim ('963) discloses measuring an amplitude and a phase of the received signal (col. 5 lines 56-60).

Regarding claims 21-27 and 29, Ben Haim ('963) discloses an apparatus for tracking an implantable object including an RF driver, a plurality of field generators, a wireless passive RF transponder fixed to the implantable object, a power storage device associated with the transponder, and a control circuit coupled to the sensor coil and power storage device, and a signal receiver adapted to receive the output signal from the transponder (col. 6 lines 23-42, col. 7 lines 14-15, col. 13 lines 24-46, col. 13 lines 58-62, col. 14 lines 13-15). Ben Haim ('963) discloses a capacitor for storing electrical energy derived from an RF driving field (col. 13 lines

50-56). Ben Haim ('963) discloses that the position determining system may include driving a plurality of field generators at different respective frequencies, which are received by the transponder and associated circuitry (col. 10 lines 46-49). Ben Haim ('963) further discloses that the transponder circuitry may operate on power received from one of the transponder coils, and further discloses that the circuitry may include a measuring unit for calculating an amplitude difference of the current flowing through the transponder coils, which is indicative of the voltage drop across the coils (col. 11 lines 20-22 and 28-31).

Regarding claims 32-35, Ben Haim ('963) discloses a wireless position verification apparatus for operation inside the body of a subject, including a sensor coil, signal analysis circuitry for sensing an amplitude and determining a low bound and a high bound of a parameter vector, a plurality of coils adapted to receive an applied RF field and a passive transponder, inherently capable of self-powering operation in receiving and transmitting RF signals as described above (col. 6 line 65, col. 7 lines 5-13 and 66-67). Ben Haim ('963) discloses that the transponder circuitry may operate on power received from one of the transponder coils, and further discloses that the circuitry may include a measuring unit for calculating an amplitude difference of the current flowing through the transponder coils, functionally equivalent to an ALU as described in the instant application (col. 11 lines 20-22 and 28-31). By the well-known relationships between voltage and current set forth by Ohm's law and Maxwell's equations, the difference in current flow is indicative of the voltage drop across the coil. Ben Haim ('963) includes a capacitor charged through one of the transponder coils, the capacitor being operable to discharge to a circuit (col. 8 lines 3-6).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 12, 13, 30, 31 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben Haim ('963).

Regarding claims 12, 13, 30 and 31, Ben Haim ('963) anticipates all features of the present inventions as described above, with the exception of specifying that the implant is a joint implant. Ben Haim ('963) generally teaches that the wireless position sensing system may be used to confirm the location of any object situated within a body (col. 4 lines 60-63). Ben Haim ('963) also teaches that a plurality of transponders may be used to assess the relative location of different parts of an object within the body by measuring the distance between respective transponders (col. 4 lines 7-11). Therefore, it would have been obvious to one of ordinary skill in the art to apply the method of Ben Haim ('963) to locating the distance between multiple transponders on a joint implant located in the body. Likewise, it would have been obvious to one of ordinary skill in the art to modify the apparatus of Ben Haim ('963) to use for the object a joint implant with multiple portions and multiple transponders. Furthermore, it would have been an obvious design choice for one of ordinary skill in the art at the time of invention to use the apparatus of Ben Haim ('963) on a femur head and acetabulum.

Regarding claim 28, Ben Haim ('963) does not disclose that the capacitor must have a capacitance between 5 and 20 microfarads. Ben Haim ('963) does disclose that the capacitor should have a large enough capacitance to store substantial charge, such as 0.1 microfarad (col. 13 lines 58-60). At the time of invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art to choose a capacitor with capacitance between 5 and 20 microfarads, as this range still satisfies the requirement set forth by Ben Haim ('963) for a capacitor with large enough capacitance to store substantial charge. One of ordinary skill in the art would furthermore expect the tracking apparatus of Ben Haim ('963) to work equally well with a capacitor of capacitance between 5-20 microfarads.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parikha Solanki whose telephone number is 571.272.3248. The examiner can normally be reached on M-F, 8 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571.272.4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Parikha Solanki
Examiner – Art Unit 3737

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